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The

Code

for

Meteorological Wireless Messages.

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Kobe, Japan

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The Code for Meteorological Wireless Messages.

The Imperial Marine Observatory, Kobe, Japan

I. General Remarks.

1 The following two Kinds of messages are broadcasted from the Radiotelegraph Station belonging to the Imperial Marine Observatory, Kobe —

(1) Synoptic data messages giving a synopsis of the meteorological situation over Japan and her neighbouring seas by means of data for twenty selected stations home and abroad

(2) Storm warning messages

2. **Synoptic data messages** are broadcasted thrice a day, that is,

at 9 h 30 m. am, giving the situation at 6 am ,

at 2 h 30 m pm, giving the situation at noon and

at 9 h 30 m pm, giving the Situation at 6 pm

Storm warning messages are broadcasted whenever a cyclone or typhoon which is likely to be a manace to navigators appears in our area

3. Call signal J T J

4 **Wave-length** used in our quenched spark system (*damped*) —

600 metres for storm warning messages

600 metres for Synoptic data messages in day-time, and

750 metres for the same in night

Wave-length used in our Poulsen's electric arc system (*undamped*) —

2650 metres for all messages

5 **The Procedure of transmitting the messages** is as follows —

In broadcasting the above meteorological messages first we transmit

them on the damped wave in the following order and after five minutes we again transmit them on the undamped waves in the same order —

1)	Commencing signal — — —	once transmitted,
2)	Q S T	thrice " ,
3)	"de" —	once " ,
4)	Call signal, J T J	once " ,
5)	Meteorobogical message	twice " ,
6)	End signal — —	once " ,

II. Synoptic data messages.

6. Synoptic data message gives the readings of the barometer, the direction and force of the wind and the state of weather at the following twenty meteological stations together with the positions of Highs and Lows —

Stations	Province	Latitude	Longitude
Ishigakijima	Loochoo Islands	24° 20′ N	124° 10′ E
Naha	"	26 13	127 11
Nase	"	28 23	129 31
Miyazaki	Japan Proper	31 55	131 26
Shimonoseki	"	33 57	130 56
Nagasaki	"	24 23	132 27
Shimonoseki	"	33 57	130 56
Choshi	"	35 44	140 51
Hachijo Ids		33 6	139 50
Chichijima (Bonin Ids)		27 5	142 11
Fukui	Japan Proper	36 3	136 16
Akita	"	39 41	140 6
Sapporo	Hokkaido	43 4	141 21
Nemuro	"	43 20	145 35

Stations	Province	Latitude	Longitude.
Moppo	Korea	34 47	126 20
Joshin	"	40 40	129 11
Ryojun (Port Arthur)	S Manchuria	38 47	121 16
Changchun	"	43 55	125 18
Tsingtau	Shantung	36 4	120 19
Shanghai	China	31 15	121 30

7. Synoptic data is transmitted in a collection of symbols and figures 100 in all

(A) The first 20 groups, each consisting of four symbols and one figure are given in the order of the stations above, so that the first group refers to Ishigakijima, the second to Naha, and so on to the twentieth group When observations are lacking, four ciphers replace the group to preserve the order The first two symbols of each group give the barometric pressure in millimetres reduced to sea-level and corrected for gravity (see Table I), and the next one symbol gives the force of wind by the Beaufort scale and the state of weather (see Table II) and the last figure the direction of wind in each points (see Table III)

Thus 

Barom Reading — Wind force and Weather — Wind direction

(B) The last twenty symbols of the collectiue message give the state and movement of Highs and Lows according to the following ormula · – –

○○○	○	○	○	○	○
Position	Depth	Dir	Speed	First remark	Second remark

Low (II)

The position of the High is given according to Table IV, the first symbol giving the latitude and the second the longitude

For the reading or intensity of the High see Table V and for the remark see Table VI

The first two symbols giving the position of the Low show the two-degree square of latitude and longitude in which the centre is located, according to Table IV as in the case of the High The last of the position symbols gives the subdivision or quadrant of the two degree square, in which the centre lies

For the depth of Low see Table VIII, for the dircetion of the progressive motion Table IX and for the speed of motion Table X For the first remark refer to Table XI and for the second remark to Table XII

Example

Synoptic data message —

QVA8	PWB8	PQF4	QJF0	QEL1
QSA2	RDF0	RYM2	QTL2	QCH3
RJK6	STL2	UFG4	UEG4	RVA0
SRA7	SQF6	RPA4	SOA0	SQA8
UYMC	LRBLARCG	SNBBCOFJ		

Translation —

Station	Barometric pressure	Weather	Wind force	Wind direction
Ishigakijima	756 4 mm	fair	2—3	N
Nafa	753 9	fair	4—5	N
Nase	753 3	cloudy	2—3	S
Miyasaki	755 2	cloudy	0—1	—

Station	Barometric pressure	Weather	Wind force	Wind direction
Shiwomisaki	754 7	rain	4—5	NE
Nagasaki	756 1	fair	2—3	E
Shimonoseki	757 2	cloudy	0—1	—
Choshi	759 3	rain	6—7	E
Hachijo	756 2	rain	4—5	E
Chichijima	754 5	cloudy	6—7	SE
Fukui	757 8	rain	2—3	W
Akita	761 4	rain	4—5	E
Sapporo	765 2	cloudy	4—5	S
Nemuro	767 7	cloudy	4—5	S
Moppo	759 0	fair	0—1	—
Joshin	761 2	fair	2—3	NW
Ryojun	761 1	cloudy	2—3	W
Changchun	758 4	fair	2—3	S
Tsingtau	760 9	fair	0—1	—
Shanghai	761 1	fair	2—3	N

High

Lat	Long	Reading	Remark
42—44° N.	150—152° E	770 mm	Shifting towards E

Low (I)

Lat.	Long	Subdiv	Depth	Direct
26—28° N	136—138° E	Sec quadr	740 mm	NNE

Speed	Ist Remark	IInd Remark
32 km/h	This low is a dangerous typhoon	Severe rain storm near the centre.

Low (II)

Lat	Long	Subdiv	Depth	Direct
38—40° N	130—132° E.	Sec quadr	760 mm	ENE

Speed	Ist Remark	IInd Remark
Unknown	This low is a secondary cyclone	Feeble

III. Storm warning messages.

8 **Storm warning message** is in plain English language

Typical warning --

Ex 1 Typhoon longitude 135 latitude 25 moving NNW severe

Ex 2 Cyclone north China moving eastwards severe snow storm expected Japan Sea to-night

Ex 3 NWly gale expected Satamisaki to Shiwomisaki

Ex 4 NWly monsoon will continue two days more

Table I. Barometric pressure.

tenth / mm	00	01	02	03	04	05	06	07	08	09
<711	AA									
711	AB	—	AC	—	AD	—	AE	—	AF	—
712	AG	—	AH	—	AI	—	AJ	—	AK	—
713	AL	—	AM	—	AN	—	AO	—	AP	—
714	AQ	—	AR	—	AS	—	AT	—	AU	—
715	AV	—	AW	—	AX	—	AY	—	AZ	—
716	BA	—	BB	—	BC	—	BD	—	BE	—
717	BF	—	BG	—	BH	—	BI	—	BJ	—
718	BK	—	BL	—	BM	—	BN	—	BO	—
719	BP	—	BQ	—	BR	—	BS	—	BT	—
720	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD
721	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN
722	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX

tenth / mm	00	01	02	03	04	05	06	07	08	09
723	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH
724	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR
725	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB
726	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL
727	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV
728	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF
729	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP
730	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ
731	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ
732	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT
738	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD
734	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN
735	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX
736	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH
737	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR
738	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB
739	JC	JD	JE	JF	JG	JH	JI	JJ	JK	JL
740	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV
741	JW	JX	JY	JZ	KA	KB	KC	KD	KE	KF
712	KG	KH	KI	KJ	KK	KL	KM	KN	KO	KP
713	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ
714	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ
715	LK	LL	LM	LN	LO	LP	LQ	LR	LS	LT
746	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD
717	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN
748	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX
719	MY	MZ	OA	OB	OC	OD	OE	OF	OG	OH
750	OI	OJ	OK	OL	OM	ON	OP	OQ	OR	OS

tenth / mm	00	01	02	03	04	05	06	07	08	00
751	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC
752	PD	PE	PF	PG	PH	P I	P J	PK	PL	PM
753	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW
754	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG
755	QH	Q I	Q J	QK	QL	QM	QN	QO	QP	QQ
756	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA
757	RB	RC	RD	RE	RF	RG	RH	R I	R J	RK
758	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU
759	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE
760	SF	SG	SH	S I	S J	SK	SL	SM	SN	SO
761	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY
762	SZ	TA	TB	TC	TD	TE	TF	TG	TH	T I
763	T J	TK	TL	TM	TN	TO	TP	TQ	TR	TS
764	TT	TU	TV	TW	TX	TY	TZ	UA	UB	UC
765	UD	UE	UF	UG	UH	U I	U J	UK	UL	UM
766	UN	UO	UP	UQ	UR	US	UT	UU	UV	UW
767	UX	UY	UZ	VA	VB	VC	VD	VE	VF	VG
768	VH	V I	V J	VK	VL	VM	VN	VO	VP	VQ
769	VR	VS	VT	VU	VV	VW	VX	VY	VZ	WA
770	W B	WC	WD	WE	WF	WG	WH	WI	WJ	WK
771	WL	WM	WN	WO	WP	WQ	WR	WS	WT	WU
772	WV	WW	WX	WY	WZ	XA	XB	XC	XD	XE
773	XF	XG	XH	X I	X J	XK	XL	XM	XN	XO
774	XP	XQ	XR	XS	XT	XU	XV	XW	XX	XY
775	XZ	YA	YB	YC	YD	YE	YF	YG	YH	Y I
776	Y J	YK	YL	YM	YN	YO	YP	YQ	YR	YS
777	YT	YU	YV	YW	YX	YY	YZ	ZA	ZB	ZC
778	ZD	ZE	ZF	ZG	ZH	Z I	Z J	ZK	ZL	ZM

tenth / mm	00	01	02	03	04	05	06	07	08	09
779	ZN	ZO	ZP	ZQ	ZR	ZS	ZT	ZU	ZV	ZW
780	ZX	ZY								
>780	ZZ									

Table II. Wind force and Weather.

Force / Weather	0 and 1	2 and 3	4 and 5	6 and 7	8 and 9	10 and over
Fair	A	A	B	C	D	E
Cloudy	F	F	G	H	I	J
Rain	K	K	L	M	N	P
Snow	Q	Q	R	S	T	U
Fog	V	V	W	X	Y	Z

Table III. Wind direction.

Direction	NE	E	SE	S	SW	W	NW	N	Calm
Cypher	1	2	3	4	5	6	7	8	0

Table IV. Position of High and Low.

Latitude

Latitude	Symbol	Latitude	Symbol	Latitude	Symbol	Latitude	Symbol
4—6°N	A	16–18°N	G	28–30°N	M	40 12°N	T
6— 8	B	18—20	H	30 - 32	N	12 44	U
8—10	C	20—22	I	32 - 34	P	44 46	V
10—12	D	22—24	J	34—36	Q	46—48	W
12—14	E	24—26	K	36—38	R	48 - 50	X
14—16	F	26—28	L	38—40	S	50 52	Y
						52 54	Z

Longitude

Longitude	Symbol	Longitude	Symbol	Longitude	Symbol	Longitude	Symbol
104–106°E	A	116–118°E	G	128–130°E	M	140–142°E	T
106—108	B	118—120	H	130—132	N	142—144	U
108—110	C	120—122	I	132—134	P	144—146	V
110—112	D	122—124	J	134—136	Q	146—148	W
112—114	E	124—126	K	136—138	R	148—150	X
114—116	F	126—128	L	138—140	S	150—152	Y
						152—154	Z

Table V. Reading of High.

	0	1	2	3	4	5	6	7	8	9
750	—	—	—	—	—	—	—	Z	Y	X
760	W	V	U	T	S	R	Q	P	O	N
770	M	L	K	J	I	H	G	F	E	D
780	C	B	A							

Table VI. Remark for High.

A The barometric pressure within the high area increasing
B The barometric pressure within the high area decreasing
C The high shifting towards the east
D The high shifting towards the north
E The high shifting towards the northeast
F The high shifting towards the southeast
G The high shifting towards the south
H. The high remaining stationary
I This high is a wandering anticyclone
J This high is the eastern part of the Siberian Anticyclone

K This is the western part of the North Pacific anticyclone

L This high is an isolated anticyclone of large extent

M This high is an isolated anticyclone of small extent

N This high is a wandering anticyclone with increasing intensity

O None to be remarked

P This high is a wandering anticyclone with decreasing intensity

Q This high is the eastern part of the Siberian anticyclone and is increasing in intensity

R This high is the eastern part of the Siberian anticyclone and is decreasing in intensity

S This high is the western part of the North Pacific anticyclone and is increasing in intensity

T This high is the western part of the North Pacific anticyclone and is decreasing in intensity

U There is another high in the Pacific

V There is another high on the Continent

W There is another high Somewhere.

X The intensity of the high is increasing, stong monsoon expected

Y The intensity of the high is remaining unchanged, the monsoon will continue to blow

Z The intensity of the high is decreasing, monsoon expected to die away

Table VII. Subdivision of the two degree square.

A 1st quadrant

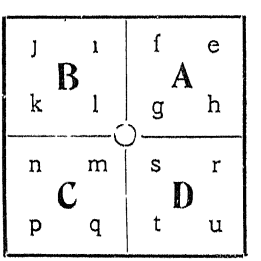
B 2nd quadrant

C 3rd quadrant

D 4th quadrant

O Whole two degree square

e 1st subdivision of the 1st quadrant



f 2nd subdivision of the 1st quadrant.
g 3rd " "
h 4th " "
ı 1st subdivision of the 2nd quadrait.
j 2nd " "
k 3rd " "
l 4th " "
m 1st subdivision of the 3rd quadrant.
n 2nd " "
p 3rd " "
q 4th " "
r 1st subdivision of the 4th quadrant
s 2nd " "
t 3rd " "
u 4th " "

Table VIII. Depth of the Low.

Depth	0	2	4	6	8
710mm	—	—	Z	Y	X
720	W	V	U	T	S
730	R	Q	P	N	M
740	L	K	J	I	H
750	G	F	E	D	C.
760	B	A			
Unknown	O				

Table IX. Direction of motion of the Low.

A	NNE	C	ENE
B	NE	D.	E

F SE
G SW
H WSW
I W
J WNW
K NW
L NNW
M. N
N NE, recurving towards E.
P NE, recurving towards N
Q NE, recurving towards SE
R E, recurving towards NE
S W, recurving towards N
T NW, recurving towards NE.
U NW, recurving towards W
V N, recurving towards NE
W N, recurving towards NW
X Stationary
Y Direction of motion remaining the same. The low is developing
Z Direction of motion remaining the Same The low is filling up
O Unknown.

Table X. — Speed of the Low.

(km per hour)

	0	1	2	3	4	5	6	7	8	9
0	A	—	B	—	C	—	D	—	E	—
10	F	—	G	—	H	—	I	—	J	—
20	K	—	L	—	M	—	N	—	P	—
30	Q	—	R	—	S	—	T	—	U	—
40	V	—	—	—	—	W	—	—	—	—
50	X									
60	Y									
>60	Z									
Unknown	O									

Table XI. First Remark of the Low.

A. This Low is a typhoon
B This Low is developing to a typhoon
C This Low is a dangerons typhoon

D This Low is a cyclone

E This Low is a severe cyclone

F This Low is a secondary cyclone

G This Low is developing to a secondary cyclone

H This Low is developing to a cyclone

Table XII. Second Remark of the Low.

A Feeble at present, but it is gradually developing

B severe at present, but it is gradually filling up

C gradually developing

D Gradually filling up

E Rapidly developing

F Rapidly filling up

G Severe rain-storm near the centre.

H Severe snow, storm near the centre

I State of the weather near the centre unknown

J Feeble

K Area of rain-storm is wide.

L Area of snow-storm is wide

M Force of wind within a distance of 300 km from the centre is 8 and upwards

N Force of wind within a distance of 400 km from the centre is 8 and upwards

O. Force of wind within a distance of 500 km from the centre is 8 and upwards

P Force of wind within a distance of 600 km from the centre is 8 and upwards

Q Force of wind within a distance of 700 km from the centre is 8 and upwards

R After the passing of this cyclone the northwest monsoon will

blow strong over the Japan Sea and Northern Japan

S After the passing of this cyclone a snow-storm with north-westerly gales will prevail over the Japan Sea and Northern Japan

T After the passing of this cyclone the northerly monsoon will blow strong over the Eastern Sea of China

U After the passing of this cyclone the northwesterly monsoon will blow strong over the Japan Sea and Northern Hokkaido, and the northerly monsoon over the Eastern Sea of China

V After passing into the Japan Sea this cyclone is expected to develop rapidly and to accompany a snow storm

W After passing into the Yellow sea this cyclone is expceted to develop rapidly

X After the passing into the Eastern Sea of China this cyclone will rapidly develop